

Notice of Allowability

Application No.

10/825,636

Examiner

Lars A Olson

Applicant(s)

DUBOIS ET AL.

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-8.
3. ☒ The drawings filed on 16 April 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Reasons for Allowance

1. Claims 1-8 are allowed.
2. The following is an examiner's statement of reasons for allowance. The winglet for mounting on a flexible line to be towed by an underwater vehicle as claimed is not shown or suggested in the prior art because of the use of a winglet that is comprised of an internal collar member for connection to an inside surface of said flexible line, an outer collar member for connection to an outside surface of said flexible line outboard of said internal collar, a connection means for fixing said internal and external collar members to said flexible line, and a plurality of fins that are mounted on and extend outwardly from an outside surface of said outer collar member. The prior art also does not show or suggest the use of a flexible line assembly that is comprised of a hollow flexible line that connects at a first end to a bow portion of an underwater vehicle, a winglet that is fixed on a second end of said flexible line, said winglet having a plurality of fins, and a tether that extends from a stern portion of said underwater vehicle and is fixed to said second end of said flexible line.
3. The prior art as disclosed by Wood (US 5,402,745) shows the use of a winglet for mounting to a flexible line that is towed underwater by a vehicle, said winglet being comprised of a an internal collar member for connection to an inside surface of said flexible line, an outer collar member for covering an outer surface of said flexible line outboard of said internal collar, a connection means for fixing said internal collar member to said flexible line, and a plurality of fins that are mounted on an outside

surface of said internal collar member. Keckler et al. (US 4,759,001) discloses a termination apparatus for a marine streamer, said apparatus being comprised of an internal collar member for connection to an inside surface of a flexible hose, an outer collar member for connection to an outside surface of said flexible hose outboard of said internal collar member, and a connection means for fixing said internal and external collar members to said flexible hose. Vanasse et al. (US 5,673,644) discloses a joint coupling for a towed array system that includes the use of fasteners to connect an outer collar member to an internal collar member. Horton (US 5,596,943) and Chaverebiere de Sal et al. (US 3,987,745) disclose a flexible line or cable that is towed by an underwater vehicle. Strange (US 3,943,483), Weese (US 3,605,674), Chance (US 3,440,992) and Cole et al. (US 3,375,800) disclose depth control apparatus with fins for connection with towed seismic streamer cables. However, none of the prior art cited shows or suggests the use of a winglet for mounting on a flexible line to be towed by an underwater vehicle, said winglet being comprised of an internal collar member for connection to an inside surface of said flexible line, an outer collar member for connection to an outside surface of said flexible line outboard of said internal collar, a connection means for fixing said internal and external collar members to said flexible line, and a plurality of fins that are mounted on and extend outwardly from an outside surface of said outer collar member. The prior art also does not show or suggest the use of a flexible line assembly that is comprised of a hollow flexible line that connects at a first end to a bow portion of an underwater vehicle, a winglet that is fixed on a second end of said flexible line, said winglet having a plurality of fins, and a tether that extends

from a stern portion of said underwater vehicle and is fixed to said second end of said flexible line.

Conclusion

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
5. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

February 7, 2005

**LARS A. OLSON
PRIMARY EXAMINER**

Lars Olson
2/7/05